Sound Monitoring Plan

From: Kevin Walker, Director of Planning
To: Interested Parties
Date: July 15, 2026
Re: Noise Design Requirements and Sound Monitoring Plan for Project Taurus
File No. DEPN-26-0039

Introduction

The City of Colorado Springs ("City") has reviewed a submittal for a Modification to the Development Plan for the property located at 1565 High Tech Way ("site"). The applicant is Raeden Corporation ("Raeden" or "Applicant").

The purpose of this Sound Monitoring Plan is to establish the regulatory and enforcement parameters for community partners on how the City Planning Department and agency partners will ensure that noise created by use and site improvements for Project Taurus do not result in a nuisance to neighboring residential properties. Several noise mitigation measures are proposed to provide these assurances. This document provides information on the sources of noise from Project Taurus, predictive noise modeling and the resulting noise mitigation measures being designed into the project, pre- and post-construction noise monitoring/measurements, and complaint resolution procedures.

Raeden and the City Planning Department ("Planning") voluntarily collaborated to develop the following plan and related agreements derived from the combination of a lack of preexisting protocols to more expansively address potential noise and proximate community concern regarding potential sound and noise and enforcement on an ongoing basis. Raeden committed the requisite financial and operational support mechanisms, such as the following program, and related governance will not require any City financial input to implement and support, as structured and identified.

Summary of Plan

1. Additional Monitoring and Remediation/Compliance offered by Applicant
2. Study of projected noise impacts – required by City, reviewed by City consultant
3. Recommended mitigation required on Development Plan Modification (see study and development plan)
4. Baseline noise conditions established
5. Monitoring details proposed and required
6. Remediation required if plan and City/State standards exceeded
7. Compliance (Please see the Development Agreement for details regarding the City requested assurance should remediation not be successful)

Sources of Noise

Noise sources associated with Project Taurus are expected to be produced by backup generators during emergency and maintenance operations, and chillers utilized for primary cooling, all located within sound attenuating walled enclosures adjacent to the data center building located at 1565 High Tech Way. Other site improvements and equipment will not generate significant levels of noise during regular or emergency operations. Overall, the types and levels of noise expected from the project are consistent with those typically found in light industrial or commercial developments that utilize backup power generation or mechanical cooling systems.

The placement and design for the generator yard (30 generators) and chiller yard (36 chillers) are illustrated on the approved Development Plan modification for the project. The backup power generators will only operate during electric service outages and monthly during regular maintenance cycles, in required adherence to State of Colorado Air Quality and City of Colorado Springs Fire Department designation of all generators as "standby-only." The chiller systems will operate 24/7/365 during operations of the facility.

Noise Modeling and Compliance

The Applicant contracted with D.L. Adams Associates ("DLAA") to provide acoustic monitoring and modeling for Project Taurus. DLAA is a recognized firm specializing in sound level studies. DLAA predicted noise levels from the operation of Project Taurus using International Organization for Standardization ("ISO") standards. The analysis demonstrated that appropriate noise mitigation measures have been designed into Project Taurus to ensure compliance with local and state requirements.

The Project Taurus Comprehensive Exterior Noise and Acoustical Design Analysis and Impact Report (herein "Report"), produced by DLAA and last dated May 29, 2026, has been provided (on file with the City Planning Department) for this project. DLAA was engaged to review, assess, and complete a comprehensive noise modeling analysis for Project Taurus, including all Development Plan-specific device data, site specific layout of equipment, topography, vegetation, and proximity to property lines and residential receptors.

The purpose of the analysis is to understand the noise impact, if any, on neighboring residential properties, and ensure compliance with local and state noise requirements and, if necessary, to make appropriate recommendations for mitigation. The applicable noise guidance under City Code Section 9.8.101, *Noise Prohibited*, states, in part:

> "It is unlawful to make, create, or permit an excessive or unusually loud noise, or a noise which endangers public safety, or a noise which is harmful to any person, which can be heard without the use of an electronic measurement device or heard and measured in the manner prescribed in section 9.8.103 of this part; except when made under and in compliance with a permit issued pursuant to section 9.8.109 of this part."

Per City Code Section 9.8.104, *Permissible Noise Levels*, the allowable noise level generation by any use at the property boundary to another use in the City are:

Zone		7:00 A.M. To Next 7:00 P.M.		7:00 P.M. To Next 7:00 A.M.
Residential		55 dB(A)		50 dB(A)
Commercial		60 dB(A)		55 dB(A)
Light industrial		70 dB(A)		65 dB(A)
Industrial		80 dB(A)		75 dB(A)

The City contracted with Hankard Environmental Inc. (herein "HEI"), an independent acoustical consultant, to review and verify the analysis methodology, data and proposed acoustical mitigation strategy. In a memorandum provided by HEI, dated June 1, 2026, the City's independent acoustical consultant affirmed the DLAA's "predicted noise levels for the generator scenarios". Given HEI's concurrence with DLAA's analysis, no additional mitigation strategies were recommended. The City also notes that HEI has contributed to the development of this Sound Monitoring Plan.

Operational Reality: The DLAA analysis predicts that, with the acoustic mitigation proposed with Project Taurus, consisting of the placement and installation of equipment yards defined by four (4) sided walls comprised of industrial sound mitigating and attenuating materials, device-level sound attenuating components (chiller "blankets" and generator enclosures), and other noise attenuation improvements (e.g. acoustical barriers and a 30-foot tall screen wall) on site, the expected maximum noise levels at the residence property boundary during normal operations will be 41 dB(A) or less, 46 dB(A) during generator testing, and 51 dB(A) or less during emergency operations. The Report also notes that an ambient noise level of 40 dB(A) is generally representative of the day and night noise level for the location and surrounding area. The DLAA analysis predicts that nighttime noise generation levels at the property boundary for most nights will drop to 34 dB(A) due to the purchase of chillers with economizer packages resulting in operations without the use of compressors under certain conditions. The proposed noise mitigation in the form of device-level acoustical mitigation (enclosures, device noise dampening, etc.), installation of acoustical barriers and the screen wall are predicted to result in noise levels that are significantly below the local and state permissible noise level limits, as identified by DLAA and confirmed by HEI.

As described in the Report, the City Code Section 9.8.105 allows for periods of "permissible increase." Specifically, the 55 dB(A) daytime limit in residential zones is relaxed by 10 dB(A) (up to 65 dB(A)) for a period of up to 15 minutes in any one-hour period. Regardless, a violation of the noise code is not expected based on predicted levels, even during the generator testing scenario, which does not exceed 15 minutes in duration.

Pre-Construction Monitoring

Additional sound monitoring will be performed prior to construction commencing to further define baseline ambient noise conditions at the site without the presence of any operating electrical or mechanical equipment anywhere on the campus/site. The baseline measurements will be used by the City to compare noise levels upon completion of the project, as well as data in the case of a noise complaint. The following procedures will be followed for pre-construction noise monitoring:

The Applicant will install and maintain at least three (3) noise level monitoring stations along the southern property line with the adjacent Chelsea Glen neighborhood. Pending system design recommendations for sensor and monitoring device placement, the Applicant may install additional monitoring locations at/beyond

the site property line (see “Monitor Location” exhibit, attached hereto and incorporated herein). Noise levels will be monitored consistently and without normal disruption for at least ten (10) contiguous days. The measurements will be continuously taken during both daytime and nighttime periods. The Applicant will be responsible for obtaining any necessary permission from the landowners and/or homeowners to install monitoring equipment and landowners/homeowners must comply with all insurance and security obligations and protocols.

The equipment installed and operated at the monitoring locations will not be continuously staffed but will be remotely monitored and physically checked at determined intervals during the Pre-Construction Monitoring program. The sound levels at the location will be measured continuously (24 hours/day) using sound level meters meeting the Class 1 requirements of ANSI S1.4. The sound level meters will be configured to measure various broadband A-weighted (dBA) and one-third octave band sound levels, including the Leq, L10, L50, and L90, pending assessment and professional recommendation by DLAA and approved by City Planning. Data will be logged continually with exceptions only applicable to force majeure, unwarranted intentional disrupting, manual interference, or device malfunction. The Analyzers will be calibrated before and after the measurement program using a sound level calibrator meeting the Class 1 requirements of ANSI S1.40-2006 (revised 2011).

The ambient data collected will be analyzed and summarized in a report to determine the background (ambient) sound levels in the project area. The report will describe the monitoring methodologies and present the monitoring results. The results of these ambient noise measurements will be provided to the City prior to commencement of construction. All readings will be made publicly available by the City via the entitlement record.

Any devices installed beyond the site boundaries, and therefore outside the control of Raeden’s site security and operations protocol, must adhere to and apply to Raeden’s corporate security, insurance, and operational standards. Should any device appear or encounter a breach or limitation/incapacitation of service within Raeden’s written operational best practices, any recordings and/or measurements from said limitation/incapacitation will be considered null and void.

Post-Construction Monitoring

Upon completion of construction, post-construction noise monitoring will be performed to document and evaluate the resulting noise levels with respect to City and state limits, as applicable, as well as to provide data in the case of a noise complaint. The results of this monitoring will be provided to the City monthly, once the facility is operational, unless otherwise approved by the City. All readings will be made publicly available by the City via the entitlement record. The post-construction monitoring procedure will entail:

The Post-Construction Monitoring program will be performed in accord with the equipment and other requirements noted above for the Pre-Construction Monitoring. These levels will be measured continuously for one (1) year when:

1) The facility is operating at full load; and
2) The facility tests the generators during estimated timelines and recommended windows, nominally occurring between 3PM and 6PM MDT, on any given weekday.

Monitoring Data Reporting (Pre-Construction and Post-Construction)

Project Taurus will record all noise monitoring data continuously via the manufacturer’s provided software for the installed noise monitoring devices and sensors. Project Taurus will integrate noise monitoring devices and

sensors with the site operations software platform, defined as the Building Management System (BMS). Project Taurus will provide all noise and sound data registered by each installed monitoring device and/or sensor monthly on a publicly Internet webpage hosted and managed by Project Taurus. All readings will also be made publicly available by the City via the entitlement record.

Compliance Investigations

To ensure Project Taurus will not violate City and state limits, as applicable, the following noise complaint procedure will be included in the operational procedures of the facility. All noise complaints regarding the facility must be directed to the City's Neighborhood Services Division through standard complaint methods. The contact information for the facility operator will be provided to the City.

- If the complaint represents a residence within one (1) mile of the site property, the City will:
    - Review data from the nearest sound measuring device;
    - Investigate whether equipment near the complainant was operating on the date and at the time and location identified;
    - Determine if the sound is related to project maintenance or abnormal operational conditions or there is a reasonable possibility of non-site sound;
    - Determine if there is a reasonable possibility that the sound level induced by the project is likely to be within 5 dBA of any applicable sound limit; and
    - Review pre- and post-construction monitoring sound data to determine whether the sound level at the complaint location is within 5 dBA above a sound level limit.

The results and findings will be promptly communicated to the complainant in writing, with a copy sent to the Applicant and the facility operator (if different).

If necessitated by the complaint and the related City review, the Applicant will then conduct additional sound monitoring using an independent acoustical or noise consultant if:

- The complaint location is closer than 0.5 miles; or
- The complaint location is closer than any previously tested monitoring location; or
- The measured sound levels are higher than the position(s) previously evaluated, or if the complaint location is not representative of the same conditions as the positions previously evaluated (e.g. vegetation, geography, other ambient sound); or
- If there is a reasonable possibility that conditions have changed that affect project sound levels; or
- The last sound monitoring was conducted more than three (3) years ago.

The Applicant or facility manager will inform a resident when it intends to conduct any exterior sound monitoring and cooperate with the resident to determine an appropriate location for the monitoring equipment.

The Applicant or facility manager will not conduct additional sound monitoring if:

- The modeled sound level, or any post construction sound levels, if such data is available, is more than 5 dBA lower than any applicable sound limit; or

- The complaint has occurred because of project maintenance or abnormal and temporary operational conditions. In this case, the Applicant or facility manager will complete necessary repairs.

All findings will be promptly communicated to the complainant in writing and may be subject to remediation, as outlined earlier in this plan.

The Applicant may request that a complainant or the City maintain a written log of potentially offending sound events over a reasonable period to assist in identifying influences that may affect the sound from the facility. If an independent acoustics or noise consultant determines that the identified factors demonstrate that follow-up sound monitoring is warranted, the Applicant will coordinate with the City and make reasonable efforts to conduct such monitoring under conditions like those existing at the time the complaint arose.

No monitoring devices installed and monitored by Raeden beyond the site perimeter will be subject to the above criteria, unless agreed to by Raeden, and each installed device must comply with strict security, monitoring, management, and operational oversight protocols inherent to Raeden's management processes.

Compliance Resolution Procedures

Upon determination by the City during Post-Construction Monitoring or in the case of a validated noise complaint, the Applicant agrees to the following remediation procedures:

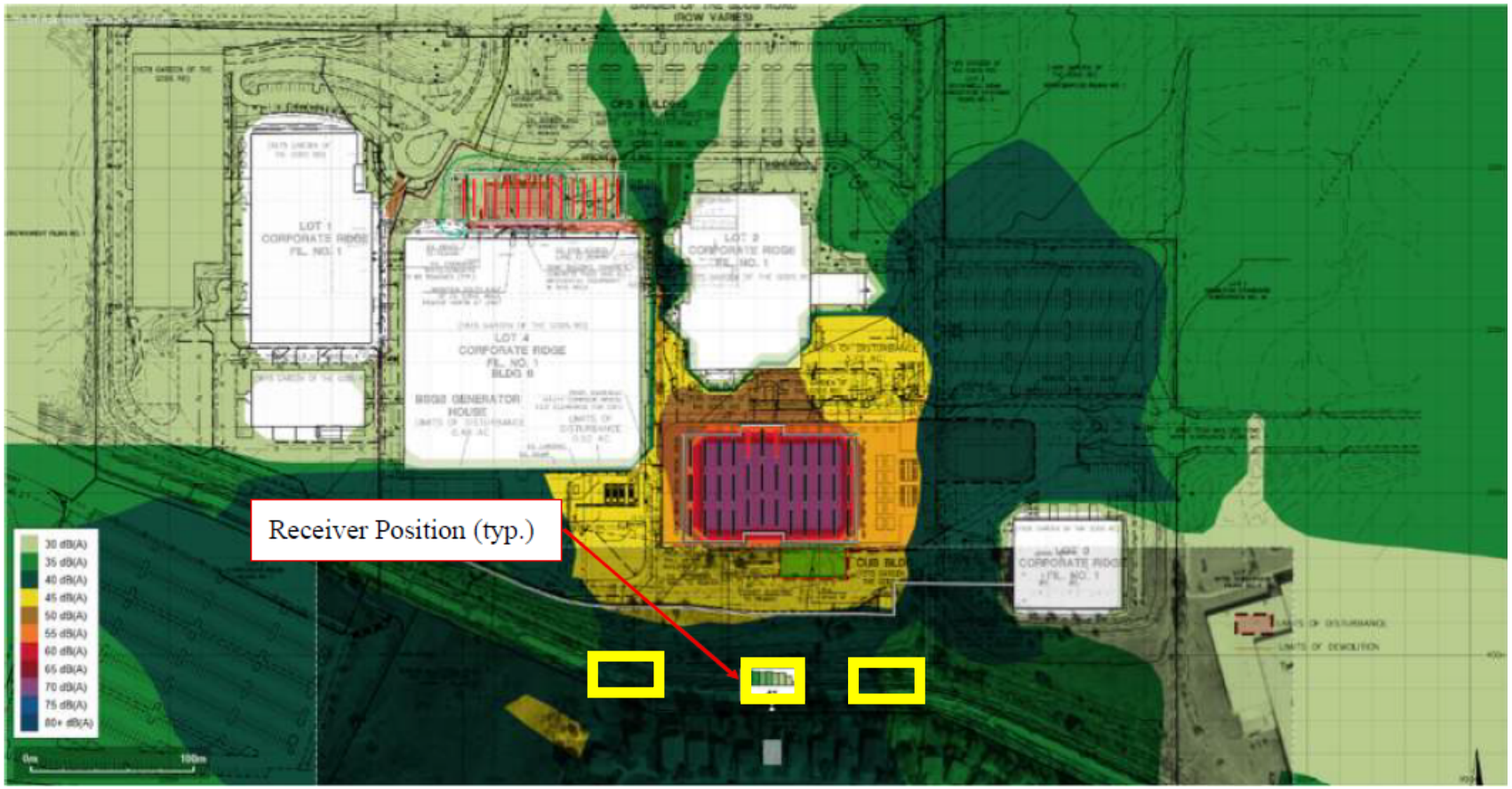
a. Violations of the strict statutory requirements will be identified to the City and to the neighboring properties within 1,000 feet of the boundary within 30 days of reporting.

b. Monitored levels of more than a 5 dBA increase from projections from the approved noise study (as may be amended and approved by COS).

c. Remediation plans that will fix the problem will be required from Project Taurus within 30 days after the complaint review period. Plans will be reviewed and approved by the City including plans for reasonably extending monitoring to ensure compliance and a schedule and deadline for performance. Any remediation plans will be made publicly available by the City via the entitlement record.

EXHIBIT: Pre-engineering Assessment Sound Monitor/Sensor Device Placement

Indications from the DLAA Engineering Sound Study inform potential locations for the three (3) Primary Monitors/Sensors. The formal engineering assessment for sound Monitor/Sensor placement will determine final placement and include considerations for additional Monitors/Sensors. Per Raeden's commitment to the community, Raeden may install additional Monitors/Sensors on residential property at the resident's request.



Premise

- Three (3) positions cover the most direct exposure of the Chelsea Glen neighborhood to the Site at the Property Line (fenceline for the most proximate residents)
- The Left Position aligns directly with the main building
- The Center Position aligns with the midline of the Chiller Yard
- The Right Position covers the lower elevation drop and rise going away from the main part of the property

Preliminary assessments indicate three (3) Monitors/Sensors will capture the widest range of sound at the Property Line

Primary Monitor/Sensor Location Regions (preliminary estimate)